REMARKS

In the December 17, 2004 Office Action, the Examiner noted that claims 1-12 were pending in the application; objected to the specification; rejected claims 4-7 under the first and second paragraphs of 35 USC § 112; and rejected claims 1-3 and 9-12 under 35 USC § 103(a). In rejecting the claims, U.S. Patents 5,960,383 to Fleischer, 6,560,620 to Ching; and 6,772,165 to O'Carroll (References A-C, respectively) and an article by Mani et al. (Reference AK in the Information Disclosure Statement filed June 15, 2001) were cited. Claims 1-12 remain in the case. The Examiner's rejections are traversed below.

Rejections under 35 USC § 112

In item 2 on page 2 of the Office Action, claims 4-7 were rejected under the first paragraph of 35 USC §112 for failing to comply with the enablement requirement. Specifically, it was asserted that the specification did not disclose "related parts", "common topics", "a drawing", or "an instruction". The term "related parts" has been amended to read "related passage" which is used in describing the field of the invention as well as on pages 5, 13-16, 52-54, etc. The term "common topics" has also been changed to "related passage". The word "drawing" is defined on page 57 starting at line 19 and the word "instruction" is described in association with step S141 in Fig. 34 at the bottom of page 59.

In item 4 on page 3 of the Office Action, claims 4-7 were rejected under the second paragraph of 35 USC § 112 due to the same terms that were the basis of the rejection under the first paragraph of 35 USC § 112. For the reasons set forth above, withdrawal of the rejections under both the first and second paragraphs of 35 USC § 112 is respectfully requested.

Rejections under 35 USC § 103(a)

In items 6-9 on pages 4-6 of the Office Action, claims 1, 3 and 9-12 were rejected under 35 USC §103(a) as unpatentable over Mani et al. in view of Fleischer and Ching. Based on the contents of the parenthetical expressions in the bulleted list on the top half on page 4 of the Office Action, the only thing cited in Mani et al. were the words "extracting information content" on page 357 in the "Introduction" (section 1) on line 7 of column 1 and the statement that "the work described here is to provide a tool for analyzing document collections such as multiple news stories about an event or a sequence of events" (page 358, column 1, lines 13-16). No suggestion has been found in the Office Action that any of the details disclosed in Mani et al. are relevant to the invention. Therefore, it is not understood why Mani et al. was cited. As a result,

the teachings in <u>Mani et al.</u> will not be addressed until the Examiner identifies what was taught by <u>Mani et al.</u> that might be relevant to the invention other than having a similar purpose.

Although not part of the rejection of claim 1, an additional portion of <u>Mani et al.</u> was cited in the second paragraph of item 10 of the Office Action in the rejection of claims 2 and 8. Based on the words in the parenthetical, lines 4-8 of the Abstract on page 357 <u>Mani et al.</u> were cited as disclosing the limitations recited in claim 2. The details of how this is accomplished are provided on pages 358-365. "Text items such as words, phrases, and proper names are extracted and represented in a graph ... [in which] nodes in the graph represent word instances at different positions" (page 358, column 2, lines 37-41). This information is then used to "explicitly identify commonalities and differences across documents" (page 360, column 1, sentence having "1." in the left margin) and "to identify the salience of different *regions* of text in a document with re-spect to a query" (page 360, column 1, in the sentence having "2." in the left margin). According to section 5 on pages 362-365 of <u>Mani et al.</u>, phrases are extracted "as summary descriptors ... which are as specific as possible ... [and] different from one another, to represent more of the conceptual content of the document" (page 363, column 1, lines 21-30). The "phrase extraction method finds candidate phrases using robust finite-state parsing techniques" (page 363, column 1, lines 31-32). One example provided "uses the maximal sequence of one or more adjectives followed by one or more nouns" (page 363, column 1, lines 34-36).

Section 6 on pages 364-367 of <u>Mani et al.</u> which is termed "Discovering Topic-Related Text Regions" begins with the statement that the system is "[g]iven a topic that expresses the user's interest" (first line of paragraph spanning 364 and 365). Nothing has been cited in this portion of <u>Mani et al.</u> suggesting that any attempt is made to identify a topic in a passage and find matching topics in other "related passages" as recited in claim 1. Although section 7.1 starting at the bottom of column 2, on page 367 and continuing in column 1, on page 368 is identified as related to "Finding Commonalities and Differences" in multiple documents, once again this is done "with respect to a topic" (line 4 of the paragraph spanning pages 367 and 389). No suggestion has been found in this section or anywhere else in <u>Mani et al.</u> that the topic is extracted from the document itself. Therefore, it is submitted that one of ordinary skill in the art would not have found it obvious from <u>Mani et al.</u> to create a "device recognizing a thematic hierarchy of each" (claim 1, line 3) document in a group of documents.

In the next-to-last paragraph on page 4 of the Office Action, based on the statement in the parenthetical, the Examiner apparently cited column 1, lines 34-35 and 40-45 of <u>Fleischer</u> which appear in the Summary of the Invention section. As stated therein, <u>Fleischer</u> includes

"dividing ... [a] document into ... identifiable sections, comparing words in each ... identifiable section ... with the document noun phrase list and providing a count associated with each ... identifiable section ..." (column 1, lines 41-45). These operations are described at column 4, line 39 to column 5, line 47 with reference to the flowchart in Fig. 5 and in somewhat more detail from column 2, line 63 to column 4, line 38. As illustrated in Fig. 5, first a "noun phrase list characteristic of document contents" (step 42 in Fig. 5) is generated using "a natural language processor, Clarit" (column 4, lines 44-45). In step 44, "the document may be divided into lines, sentences, paragraphs, or chapters" (column 4, last line to column 5, line 1), which form "sections" defined by a user (see column 5, lines 1-4). In step 46, "the document sections are compared against the list of noun phrases" (column 5, lines 5-6) and for "each match of a phrase from the noun phrase list to a phrase appearing in the document part a count is incremented, the final count resulting in a score for that document section" (column 5, lines 8-11).

In the second paragraph on page 5 of the Office Action, Fig. 8 and column 2, lines 34-38 of Ching were cited. Fig. 8 shows eleven lines of text in which a single change from "4.1.4" to "4.1.5" occurs. The cited portion of column 2 describes a display of documents which "lists the identified segments from the first document and ... the identified segments from the second document" (column 2, lines 35-38) side-by-side.

Assuming for sake of argument that one of ordinary skill in the art would find it obvious to combine the specific parts of Mani et al., Fleischer and Ching cited in rejecting claim 1, it is submitted that what is taught therein does not make the present invention obvious. Since Fleischer merely describes dividing a document into sections, no suggestion has been found of "recognizing a thematic hierarchy" (claim 1, lines 3). As noted above, the list of possible types of sections on the first line of column 5 in Fleischer contains no suggestion that more than one of these examples, i.e., "lines, sentences, paragraphs, or chapters" are used. Rather, it would appear from reading the text that these are different sizes of units that could be selected, but each of the units used in a particular instance would have just one of these definitions. Thus, there is no "hierarchy" (claim 1, line 3) in the system taught by Fleischer. In short, nothing has been found in any of the cited references suggesting "composing the topics in a form of a thematic hierarchy, where each layer of the thematic hierarchy expresses a segmentation of a document using similarly graded topics" (claim 1, lines 5-7).

Furthermore, nothing has been cited or found in Fleischer or any of the other references suggesting "detecting topics of various grading" (claim 1, line 4) where the term "grading" is defined in the specification at page 12, lines 16-17 as referring to different "sizes". As indicated

by lines 5-7, in claim 1 the different grading or sizes relate the thematic hierarchy that is determined by the apparatus recited in claim 1.

Finally, as discussed above, <u>Ching</u> relates to a system for displaying different versions of a document, so that changes in the document can be easily observed. Nothing has been cited or found in <u>Ching</u> or any of the other cited references that an "extracted" topic from each of the plurality of documents" (claim 1, next to last line) is used to extract "description parts as related passages among the documents" (claim 1, last two lines).

For the above reasons, it is submitted that claim 1 and claim 3 which depends therefrom patentably distinguish over <u>Mani et al.</u> in view of <u>Fleischer</u> and <u>Ching</u>. Limitations similar to those quoted above from claim 1 are recited in claims 9-12. Therefore, it is submitted that claims 1-3 and 9-12 patentably distinguish over <u>Mani et al.</u> in view of <u>Fleischer</u> and <u>Ching</u>.

In item 10 on pages 6-7 of the Office Action, claims 2 and 8 were rejected under 35 USC § 103(a) as unpatentable over <u>Mani et al.</u>, <u>Fleischer</u> and <u>Ching</u> and further in view of <u>O'Carroll</u>. Based on the statements in the parenthetical, it is understood that column 1, lines 50-55 and Figs. 8-11 of <u>O'Carroll</u> were cited. The text is the first paragraph of the Summary of the Invention which describes generating a target document from a source document by "merging the source document with at least one other source document" (column 1, lines 53-54). Figs. 8-11 illustrate hierarchically arranged bubbles containing a small amount of text which are described in the Brief of the Description of the Drawings as "diagrams of trees to illustrate merging operations" (column 4, lines 26-27). In the Description of the Embodiments, the only reference to FIG 8 is the paragraph at column 5, lines 6-13 which appears to be a description of Fig. 7(c). As a result, it is submitted that one of ordinary skill in the art would not be taught anything by Fig. 8 of <u>O'Carroll</u>.

A "merging operation is ... described in more detail with reference to FIGS. 9-10, and 11" (column 6, lines 36-37) in <u>O'Carroll</u>. The description of the merging operation continues to the middle of column 12. However, claim 2 is not directed to merging documents, but rather to calculation of "a relevance score between topics of the topic set based on lexical similarity of description parts corresponding to each topic of the topic set" (column 2, lines 3-4) and extraction of "a topic set having a relevance score equal to or more than a threshold that is set based on inclusive relationship of topics" (claim 2, last three lines).

As discussed above, nothing was cited or has been found in <u>Mani et al.</u> of an "extracting device [which] calculates a relevance score between topics" (claim 2, line 3) that have been extracted from documents, as opposed to identified as matching a topic given by a user.

Nothing was cited in <u>O'Carroll</u> related to the limitations recited in claim 2. Therefore, it is not understood why <u>O'Carroll</u> was added to the combination of <u>Mani et al.</u>, <u>Fleischer</u> and <u>Ching</u> in rejecting claim 2. Regardless of the reason, it is submitted that claim 2 patentably distinguishes over this combination for at least the reasons discussed above with respect to claim 1 from which claim 2 depends.

Claim 8 depends from claim 1 and nothing in <u>O'Carroll</u> has been cited or found that overcomes the deficiencies of the other three references discussed above. Therefore, it is submitted that claim 8 patentably distinguishes over <u>Mani et al.</u> in view of <u>Fleischer</u>, <u>Ching</u> and <u>O'Carroll</u> for at least the reasons discussed above with respect to claim 1.

Claims 4-7 not Rejected over Prior Art

Since claims 4-7 were not rejected over the prior art, now that the rejections under 35 USC § 112 have been overcome, indication of the allowability of the subject matter recited in claims 4-7 is respectfully requested.

Drawings

Item 10 of the Office Action Summary (Form PTOL-326) indicated that the drawings were objected to by the Examiner and required correction in response to the Office Action. However, no mention of what drawing changes were required was found in the Detailed Action. As a result, no changes to the drawings are being provided. The Examiner is respectfully requested to point out the drawing requirements in the next Office Action or by calling the undersigned by telephone.

Summary

It is submitted that the references cited by the Examiner, taken individually or in combination, do not teach or suggest the features of the present claimed invention. Thus, it is submitted that claims 1-12 are in a condition suitable for allowance. Entry of the Amendment, reconsideration of the claims and an early Notice of Allowance are earnestly solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: *Richard A. Gollhofer*

Richard A. Gollhofer
Registration No. 31,106

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501